

Appl. No.: 10/019,563
Amendment dated November 18, 2005
Responsive to Office Action of August 23, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (Cancelled)

11. (Currently Amended) A medical apparatus for remodeling a mitral valve annulus adjacent to the coronary sinus, comprising:

an elongate body having a proximal end region and a distal end region, each of the proximal and distal end regions dimensioned to reside completely within the vascular system, the elongate body being movable from a first configuration for transluminal delivery to at least a portion of the coronary sinus to a second configuration for remodeling the mitral valve annulus proximate the coronary sinus; and

a forming element attached to the elongate body for manipulating the elongate body from the first transluminal configuration to the second remodeling configuration;

wherein the elongate body ~~presses~~ is configured to press a portion of the coronary sinus against the mitral valve annulus when in the second remodeling configuration.

12. (Previously Presented) The medical apparatus according to claim 11, wherein the forming element is connected to the elongate body at a point of attachment and the forming element is movable relative to the elongate body in order to adjust the elongate body within the coronary sinus between the first and second configurations.

13. (Currently Amended) The medical apparatus according to claim 12, wherein the forming element is ~~maneuverable~~ configured to be maneuvered from outside the vein system for manipulating the elongate body.

14. (Canceled)

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15. (Previously Presented) A medical apparatus as in claim 11, wherein the elongate body assumes a reduced radius of curvature when in the remodeling configuration.

16. (Previously Presented) A medical apparatus as in claim 11, further comprising a coating on the body for avoiding thrombosis in the coronary sinus.

17. (Previously Presented) A medical apparatus as in claim 11, wherein the apparatus is movable from the transluminal configuration to the remodeling configuration in response to proximal retraction of the forming element.

18. (Previously Presented) A medical apparatus as in claim 11, wherein the apparatus is movable from the implantation configuration to the remodeling configuration in response to distal advancement of the forming element.

19. (Previously Presented) A medical apparatus as in claim 11, further comprising a first stent section disposed along the distal end region of the elongate body for retaining the apparatus at a deployment site within a vessel.

20. (Previously Presented) A medical apparatus as in claim 19, wherein the first stent section is self-expanding for engaging the wall of the vessel.

21. (Previously Presented) A medical apparatus as in claim 19, wherein the forming element is connected to the first stent section.

22-30. (Canceled)

31. (Previously Presented) A mitral valve annulus constricting device comprising a generally U-shaped member formed of resilient material and configured to assume a reduced radius of curvature after delivery into the coronary sinus for exerting a substantially radially inward force on the mitral valve annulus.

32-48. (Canceled)

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49. (Currently Amended) A method ~~to reduce~~ of reshaping a mitral valve annulus comprising inserting ~~as~~ a resilient elongate body at least partially into a coronary sinus using a catheterization technique and adjusting a shape curvature of the elongate body within the coronary sinus for pressing the coronary sinus against the mitral valve annulus.

50. (Currently Amended) A method of closing a gap ~~in~~ between the leaflets of a mitral valve comprising advancing ~~as~~ a resilient elongate body at least partially into a coronary sinus using a catheterization technique and adjusting the elongate body from a location outside the body for pressing the coronary sinus against a mitral valve annulus of the mitral valve to close the gap.

51. (Previously Presented) A medical device for remodeling an extravascular tissue structure adjacent to a vessel in a patient, comprising:

an elongate body extending between a proximal end and a distal end, and that is adjustable between a first configuration having a first shape such that the elongate body is adapted to be delivered at least in part into the vessel and a second configuration having a second shape such that the elongate body is adapted to exert a force from within the vessel onto the extravascular tissue structure in order to remodel the extravascular tissue structure,

wherein the elongate body is adapted to be positioned in the first configuration at least in part within a coronary sinus and is adapted to remodel a mitral valve annulus adjacent to the coronary sinus when the elongate body is located at least in part within the coronary sinus and is adjusted to the second configuration; and,

a forming element that is connected to the elongate body at a point of attachment and that is moveable in order to adjust the elongate body within the coronary sinus between the first and second configurations.

52. (Previously presented) The medical device of claim 51 wherein the forming element is moveable relative to the elongate body in order to adjust the elongate body within the coronary sinus between the first and second configurations.

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53. (Previously presented) A medical device as in claim 51, wherein the elongate body is adjustable from the first configuration to the second configuration principally by applying a force from the forming element to the elongate body.

54. (Previously presented) A medical device as in claim 51, wherein the elongate body is adapted to be uncoupled in the second configuration from at least a portion of the forming element located at least in part within at least the coronary sinus.

55. (Previously presented) A medical device as in claim 51, wherein the forming element is adapted to be severed while the elongate body is positioned at least in part within the coronary sinus in the second configuration.

56. (Previously presented) A medical device as in claim 51, wherein the proximal extension of the forming element comprises a proximal member;

the forming element further comprises a distal member that is coupled to the proximal member and is attached to the elongate body at the point of attachment;

the proximal member is adapted to transmit an applied force from outside the patient to the distal member while the elongate body along the midportion is located within the coronary sinus;

the distal member is adapted to substantially transmit the applied force from the proximal member to the elongate body in order to adjust the elongate body from the first configuration to the second configuration within the coronary sinus;

and the distal member is detachable from the proximal member while the elongate body is in the second configuration at least in part within the coronary sinus in order to thereby sever the forming element.

57. (Previously presented) A medical device as in Claim 51, wherein the forming element between the point of attachment and the proximal end portion of the elongate body is substantially circumferentially confined by the elongate body.

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58. (Previously presented) A medical device as in Claim 51, wherein the forming element has a proximal extension that extends proximally from the elongate body and externally of the patient when the elongate body is located at least in part within the coronary sinus, and the elongate body within the coronary sinus is adjustable within the coronary sinus from the first configuration to the second configuration by manipulating the proximal extension outside of the patient.

59. (Previously presented) A medical device as in claim 51, further comprising an anchor for retaining at least a portion of elongate body within the coronary sinus.

60. (Previously presented) A medical device as in claim 51, wherein the elongate body comprises a length along an axis and is adjustable from the first configuration to the second configuration principally by transmitting an axial force from the forming element onto the elongate body relative to the axis.

61. (Previously presented) A medical device as in claim 51, wherein the elongate body is adjustable from the first configuration to the second configuration in response to proximal retraction of the forming element.

62. (Previously presented) A medical device as in claim 51, wherein the elongate body is movable from the first configuration to the second configuration in response to distal advancement of the forming element.

63. (Previously Presented) A device for effecting mitral valve annulus geometry of a heart comprising:

a first fixation element configured to be positioned within and fixed to the coronary sinus of the heart adjacent the mitral valve annulus within the heart;

a wire connected to the first fixation element and extending proximally from the first fixation element through the coronary sinus; and

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a second fixation element configured to be positioned in and fixed in the heart proximal to the first fixation element;

wherein the wire is maneuverable from a location outside the vein system to reshape the mitral valve annulus and the first and second fixation elements are configured to hold the mitral valve annulus in a reshaped condition.

64. (Previously Presented) A method of effecting mitral valve annulus geometry in a heart, the method including the steps of:

providing an elongate body having first and second stent sections and a wire connected to the first stent section;

fixing the first stent section within the coronary sinus of the heart adjacent to the mitral valve annulus;

fixing the second stent section within the heart proximal to the first stent section; and

withdrawing the wire for pulling the first stent section toward the second stent section, thereby reshaping the coronary sinus and causing the coronary sinus to press against the mitral valve annulus.